

ASIAN GIANT HORNET STAKEHOLDER UPDATE #15 – OCTOBER 26, 2020

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Many of the activities covered in this update were discussed in WSDA's virtual press conferences. However, we wanted to include them in this written format for those who may not have seen our virtual updates.

FIRST ASIAN GIANT HORNET NEST ERADICATION

Saturday's operation began at about 5:30 a.m. on October 24. The team donned protective suits and set up scaffolding around the tree to reach the opening of the nest located roughly ten feet high. The team stuffed dense foam padding into a crevice above and below the nest entrance and wrapped the tree with cellophane, leaving just a single opening. This is where the team inserted a vacuum hose to remove the hornets from the nest. The work proceeded slowly at first, with very few hornets emerging. The team members used a wooden board and some smart whacks against the tree to encourage more hornets to leave the nest. This proved successful. When the hornets stopped coming out of the nest, the team pumped carbon dioxide into the tree to kill or anesthetize any remaining hornets. They then sealed the tree with spray foam, wrapped it again with cellophane, and finally placed traps nearby to catch any potential survivors or hornets who may have been away during the operation and return to the tree. The work was completed by 9 a.m.



In all, the entomologists with WSDA's Pest Program removed 98 worker hornets. During the early morning extraction, 85 hornets were vacuumed out of the nest and another 13 live hornets were collected with a net while observing the nest on Friday.

"The eradication went very smoothly, even though our original plan had to be adapted due to the fact that the nest was in a tree, rather than the ground," managing entomologist Sven Spichiger said. "While this is certainly a morale boost, this is only the start of our work to hopefully prevent the Asian giant hornet from gaining a foothold in the Pacific Northwest. We suspect there may be more nests in Whatcom County." View the press release [here](#).



FIRST ASIAN GIANT HORNET NEST LOCATED IN THE US

On October 21 a WSDA trapper discovered two live Asian giant hornets in an experimental live trap. The bait in this trap contained a mixture of orange juice, rice cooking wine, and water that had honey bee comb boiled into it. Additionally, it included a lure made with a combination of acetic acid and isobutanol. The trap was placed near the September 21 detection outside of Blaine. The hornets were removed and kept alive overnight to provide an opportunity to follow them back to the nest.

Upon arrival on October 22 the WSDA discovered two more live hornets in a nearby trap baited with acetic acid and isobutanol. After collecting the additional hornets, all were placed on ice to keep calm and temporarily slow their movements.

A radio tag was successfully tied using dental floss to an October 21 specimen. The hornet was fed strawberry jelly for energy as it warmed up. When movement began it was transferred to a tree leaf. The hornet remained in the tree with no flight. The WSDA removed a second hornet and successfully attached a radio tag, it was also fed strawberry jelly. This hornet took off and flew a few feet before resting on a nearby vine. A third hornet was tagged, fed strawberry jelly, and allowed to warm up. She flew in the air, came to rest, and then chewed through the dental floss removing her tag. The previous hornet was removed from the tree and given more jelly. After a few minutes of eating and grooming this hornet took flight.



Staff were able to visually track the hornet this hornet to a nearby tree. They were also equipped with new radio transponders to follow it further. The hornet took flight again, quickly leaving visual detection. WSDA followed the signal from the tracker as it grew increasingly stronger until it reached the max signal. There was no visible nest; however, hornets were spotted flying near an alder tree, and then confirmed to be entering it through a tree cavity. This is the first Asian giant hornet nest located in the United States. View the press release [here](#).



ABOUT THE EQUIPMENT

TAGGING EQUIPMENT

The WSDA has used two different types of tags to track Asian giant hornets back to the nest. The first set of trackers used Bluetooth technology and were provided by Vikram Iyer from the University of Washington. These tags produce a signal every two seconds and include a temperature sensor and tracking app for cellular devices. Unfortunately, the tags did not have a long enough range to successfully locate a nest. The second set of trackers were shared from the Otis Laboratory. These NanoTags use radio transmitters that produce a signal every ten seconds, and have a longer range.



ERADICATION EQUIPMENT

The WSDA is seen in many pictures donning protective gear during eradication. Asian giant hornets can sting multiple times, have a larger stinger, and can deliver more of a toxic venom than native bees and wasps. Consequently special suits were ordered to keep workers safe. Asian giant hornets may also

spray venom, therefore the suits have protective face shields. The suits are one piece including boots and gloves. They consist of multiple layers of materials including interlocking mesh. While the suits are bulky and can be challenging to work in, safety is very important when interacting with Asian giant hornets.

ABOUT THE SPECIMENS

Specimens collected from the October 24 eradication will be used to further research surrounding Asian giant hornets. Unfortunately specimens from this eradication are not available for private collections.

The Agriculture Research Service (ARS) is interested in effects Asian giant hornets can have on sustainable agriculture. Animal and Plant Health Inspection Service (APHIS) is further testing Asian giant hornet attractants and lures, as well as continuing work on genome research. Plant Protection and Quarantine (PPQ) will research pheromones through the OTIS laboratory. Some specimens will also be sent to the United States Museum and some deposited at land grant university collections for further research and education. Continued research of Asian giant hornets will help us better understand this invasive species, and will also enhance the WSDAs ability to preventing their establishment in Washington.

Although a total of 98 workers were detected the queen has not yet located. It has been speculated that she may still be inside the sealed nest. Upon removal the nest will be examined and appropriated for further study.

NEW DETECTIONS

Remember to check out the Hornets website to see up to date data on Asian giant hornet trapping and detections in Washington through the [Asian giant hornet public dashboard](#).

OCTOBER 15 – BLAINE

Two Asian giant hornets were discovered in a bottle trap near Blaine WA. Both were confirmed to be workers. Additional live trap were deployed around this location.

OCTOBER 21 - BLAINE

Two Asian giant hornets were discovered in a live trap by a WSDA trapper near Blaine WA. This capture was near the location of the first tagging attempt.

OCTOBER 22 - BLAINE

Two Asian giant hornets were discovered in an experimental trap by the WSDA near Blaine WA. This was near the location of the October 21 detection.

TRACK, DON'T WHACK!

The “Track! Don’t whack!” campaign is still ongoing. We are urging those who spot Asian giant hornets NOT to kill them at this time of year. While a dead Asian giant hornet does provide a detection point, it is more useful to capture a live Asian giant hornet or to watch the flight direction. This will allow tracking back to the nest for eradication. Please do not try to capture live Asian giant hornets, but report for the WSDA to capture. Killing one worker hornet doesn’t do much for stopping the colony, but seeing where they are flying provides good information about the nest’s location. Eradicating the nest is the goal!

Asian giant hornet reports can be made at agr.wa.gov/hornets, hornets@agr.wa.gov, or by calling 1-800-443-6684.



CITIZEN SCIENTIST TRAPPING NEARS AN END

END OF TRAP CONTENT SUBMISSION OCTOBER 31

October 31 will be the last date for the citizen scientist trapping program. Empty your trap to process the last collection before October 31st. This means you should not rebait any traps after October 31st, and you should send in any collections either via mail or at a drop-off location.

DROP OFF SITES CLOSE ON NOVEMBER 6

All drop-off sites will continue to accept trap submissions for the season through November 6. After that time, they will no longer accept trap submissions, so be sure to drop them off or mail in your submissions by then.

TRAPPING THROUGH NOVEMBER

The citizen scientist trapping program ends October 31. However, those who wish to in **Whatcom, Skagit, Island, and San Juan counties** should consider keeping their traps up through November. You will still need to check and change the bait when necessary, but you will no longer submit or report your trap catches, unless you catch an Asian giant hornet!

RECYCLE OR KEEP BOTTLES FOR NEXT YEAR.

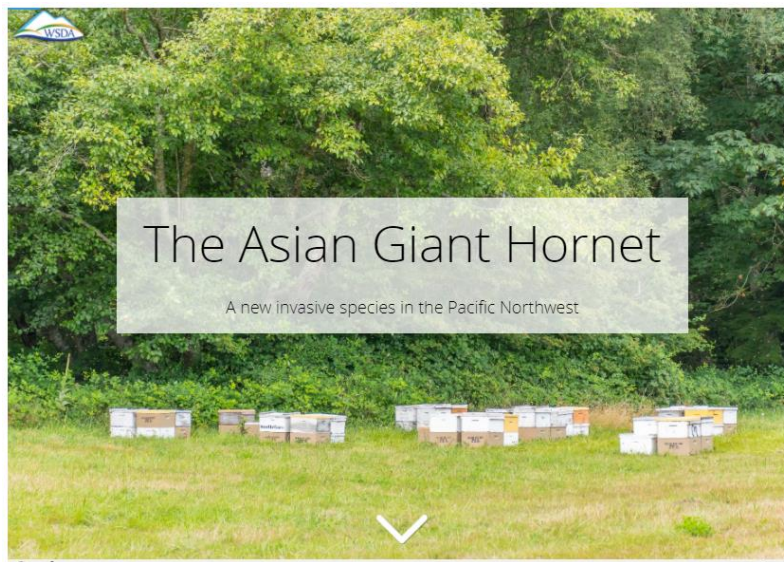
Please recycle your bottles or keep them for next year. We will be revising our citizen scientist trapping program over the winter and if you would like to participate next year, the bottle(s) may come in handy. If you are considering participating next year – good news! We will not be asking for trap submission (no need to mail in or drop off trap contents in 2021!)

WATCH FOR OUR CITIZEN SCIENTIST TRAPPING SURVEY

Whether you participated in citizen scientist trapping for a week or several months, we would like to hear from you about your experience. We will be conducting a survey of our citizen scientist trappers in early November. Please watch your email for the survey. Your feedback will help shape our citizen scientist trapping program next year.

NEW STORY MAP

The WSDA Hornets webpage has been updated to include an [Asian giant hornet story map](#). This interactive board uses a dynamic timeline to document Asian giant hornet progression in the Pacific Northwest. It is regularly updated to include new developments and eradication efforts.



UPDATE FROM CANADA

British Columbia had one new Asian giant hornet sighting on October 9th through a public submission. The sighting was south of Langley near the Canadian border. They continue to monitor carbohydrate-based traps and encourage citizens to report Asian giant hornets.

STAY CONNECTED

- [View past news releases, blogs, and Pest Program updates](#) about Asian giant hornet.
- Join the [Asian giant hornet Facebook group](#).
- Join the [Pest Program email listserv](#).
- Follow WSDA on [Facebook](#), [Instagram](#), [YouTube](#), and [Twitter](#).